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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,404	10/19/2001	Jeffrey A. Hubbell	50154/004002	7897
21559	7590	10/04/2005	EXAMINER	
CLARK & ELBING LLP 101 FEDERAL STREET BOSTON, MA 02110			ASINOVSKY, OLGA	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/047,404

Applicant(s)

HUBBELL ET AL.

Examiner

Olga Asinovsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 and 62 is/are pending in the application.
- 4a) Of the above claim(s) 10 and 29-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-28, 34 and 62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Nov. 26, 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3 11-13, 23, 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 1348045.

The rejection is set forth at pages 2-3 of the office action mailed on 01/07/2005 and it is incorporated here by reference.

Response to Arguments

3. Applicant's arguments filed 07/11/2005 have been fully considered but they are not persuasive. The argument is that reference does not disclose each step in the claimed method, that GB'045 does not disclose step (a) providing a first compound comprising a polymeric thiol precursor; (b) generating a polymeric thiol from said first compound.

The term precursor can be any starting raw polymer. A polymeric thiol precursor can be any polymer having at least one thiol group.

GB'045 does disclose a precursor as starting materials of trithiols and polythiols that are prepared by reacting thioolefin or polyolefin (polybutadiene) with hydrogen sulfide, page 3, lines 31-35, page 15, line 16 and page 16, lines 1-2.

"Similarly, the polythiol adducts of hydrogen sulfide to triacryloyl triazine,

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triacyloyl ester, triallylcarbinol can be used." Reaction of episulfides with thiols can be carried out using a catalyst such as phosphine complexes or organic amines and/or temperature, page 1, lines 25-28 and 35-37 and page 8, lines 1-48. Therefore, a step (b) of generating a polymeric thiol in the present claims is also inherent in GB'045. The block copolymer is also readable in GB'045, page 5, lines 5 and 10-18. The preferred episulfide is propylene episulfide, page 1, line 32.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 4-9, 14-22, 24-26, 34 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 1 348 045 as applied to claim 1, 3, 11-13, 23, 27-28 above, and further in view of WO 00/44808.

GB'045 does not disclose a third compound that comprises a group reactive to thiols.

WO 00/44808 discloses a composition comprising two or more precursor components having functional groups. At least one component is a strong nucleophile comprising polymer having thio group, claim 4 at page 93. The polythiol having acrylate functionality is readable in applicants' claims. Other

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compound is a hydrophilic reactive compound such as polyethylene glycol, claim 7 at page 94 and page 41, lines 15-25, for the present claim 5.

It would have been obvious to one of ordinary skill in the art to modify polythioether compound in GB' 045 by employing a water-soluble polymer such as polyethylene glycol as discloses by WO 00/44808, because a hydrophilic material that is reactive with thiol group is expected in GB'045 as being substituents on the radical R having oxygen group, GB'045 page 2, lines 45 and 50-57, and by reasonable expectation for additional chain extender or crosslinking compound since the resulting polymer can be used in the field of coatings, GB '045 page 10, lines 12-31.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Asinovsky whose telephone number is 571-272-1066. The examiner can normally be reached on 9:00 to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

O.A.

O.A.

September 28, 2005



James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700